



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Anguera Pros et al.

Application No.: 10/632,604

Art Unit: Not Yet Assigned

Filed: August 1, 2003

Examiner: Not Yet Assigned

For: **MINIATURE BROADBAND RING-LIKE
MICROSTRIP PATCH ANTENNA**

Attorney Docket No.: 153454600010

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Statement is submitted in compliance with 37 C.F.R. § 1.56.

A list of patent(s) and/or publication(s) is set forth on the attached Form PTO-1449. A copy of each foreign patent and publication is enclosed.

Any fees required for the proper filing of this Information Disclosure Statement should be withdrawn from the Jones Day Deposit Account No. 50-1432, account 153454600010.

Respectfully submitted,

David M. Maiorana
Registration No. 41,449
JONES DAY
North Point
901 Lakeside Avenue
Cleveland, Ohio 44114
(216) 586-3939

Date: 2/4/04

I hereby certify that this correspondence
is being deposited today with the United
States Postal Service as first class mail in
an envelope addressed to: Commissioner for
Patents, P.O. Box 1450, Alexandria, VA
22313-1450
on February 4, 2004

By: Kathleen J. Kopczynski

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT
(Use several sheets if necessary)

(37 CFR 1.98(b))



Serial No.: 10/632,604

Applicant(s): Anguera Pros et al.

Filing Date: August 1, 2003

Group: Not Yet Assigned

U.S. PATENT DOCUMENTS

Exam. Init.	Patent Number							Issue Date	Patentee	Class	Subclass	Filing Date
2002/	0	0	0	0	9	4	0	01/03/2002	Moren et al.			
2002/	0	0	0	0	9	4	2	01/03/2002	Duroux			
2002/	0	0	3	6	5	9	4	03/28/2002	Gyenes			
2002/	0	1	0	5	4	6	8	08/08/2002	Tessier et al.			
2002/	0	1	0	9	6	3	3	08/15/2002	Ow et al.			
2002/	0	1	2	6	0	5	4	09/12/2002	Fuerst et al.			
2002/	0	1	2	6	0	5	5	09/12/2002	Lindenmeier et al.			
2002/	0	1	7	5	8	6	6	11/28/2002	Gram			
	3	5	2	1	2	8	4	07/21/1970	Shelton, Jr. et al.			
	3	5	9	9	2	1	4	08/10/1971	Altmayer			
	3	6	2	2	8	9	0	11/23/1971	Fujimoto et al.			
	3	6	8	3	3	7	6	08/08/1972	Pronovost			
	3	8	1	8	4	9	0	06/18/1974	Leahy			
	3	9	6	7	2	7	6	06/29/1976	Goubau			
	3	9	6	9	7	3	0	07/13/1976	Fuchser			
	4	0	2	4	5	4	2	05/17/1977	Ikawa et al.			
	4	1	3	1	8	9	3	12/26/1978	Munson et al.			
	4	1	4	1	0	1	6	02/20/1979	Nelson			
	4	4	7	1	3	5	8	09/11/1984	Glasser			
	4	4	7	1	4	9	3	09/11/1984	Schober			
	4	5	0	4	8	3	4	03/12/1985	Garay et al.			
	4	5	4	3	5	8	1	09/24/1985	Nemet			
	4	5	7	1	5	9	5	02/18/1986	Phillips et al.			
	4	5	8	4	7	0	9	04/22/1986	Kneisel et al.			
	4	5	9	0	6	1	4	05/20/1986	Erat			
	4	6	2	3	8	9	4	11/18/1986	Lee et al.			
	4	6	7	3	9	4	8	06/16/1987	Kuo			
	4	7	3	0	1	9	5	03/08/1988	Phillips et al.			
	4	8	3	9	6	6	0	06/13/1989	Hadzoglou			
	4	8	4	3	4	6	8	06/27/1989	Drewery			
	4	8	4	7	6	2	9	07/11/1989	Shimazaki			
	4	8	4	9	7	6	6	07/18/1989	Inaba et al.			
	4	8	5	7	9	3	9	08/15/1989	Shimazaki			
	4	8	9	0	1	1	4	12/26/1989	Egashira			
	4	8	9	4	6	6	3	01/16/1990	Urbish et al.			
	4	9	0	7	0	1	1	03/06/1990	Kuo			
	4	9	1	2	4	8	1	03/27/1990	Mace et al.			
	4	9	7	5	7	1	1	12/04/1990	Lee			
	5	0	3	0	9	6	3	07/09/1991	Tadama			

		5	1	3	8	3	2	8	08/11/1992	Zibrik et al.					
		5	1	6	8	4	7	2	12/01/1992	Lockwood					
		5	1	7	2	0	8	4	12/15/1995	Fiedzuiszko et al.					
		5	2	0	0	7	5	6	04/06/1993	Feller					
		5	2	1	4	4	3	4	05/25/1993	Hsu					
		5	2	1	8	3	7	0	06/08/1993	Blaese					
		5	2	2	7	8	0	4	07/13/1993	Oda					
		5	2	2	7	8	0	8	07/13/1993	Davis					
		5	2	4	5	3	5	0	09/14/1993	Sroka					
		5	2	4	8	9	8	8	09/28/1993	Makino					
		5	2	5	5	0	0	2	10/19/1993	Day					
		5	2	5	7	0	3	2	10/26/1993	Diamond et al.					
		5	3	4	7	2	9	1	09/13/1994	Moore					
		5	3	5	5	1	4	4	10/11/1994	Walton et al.					
		5	3	5	5	3	1	8	10/11/1994	Dionnet et al.					
		5	3	7	3	3	0	0	12/13/1994	Jenness et al.					
		5	4	0	2	1	3	4	03/28/1995	Miller et al.					
		5	4	2	0	5	9	9	05/30/1995	Erkocevic					
		5	4	2	2	6	5	1	06/06/1995	Chang					
		5	4	5	1	9	6	5	09/19/1995	Matsumoto					
		5	4	5	1	9	6	8	09/19/1995	Emery					
		5	4	5	7	4	6	9	10/10/1995	Diamond et al.					
		5	4	7	1	2	2	4	11/28/1995	Barkeshli					
		5	4	9	3	7	0	2	02/20/1996	Crowley et al.					
		5	5	3	7	3	6	7	07/16/1996	Lockwood et al.					
		5	6	1	9	2	0	5	04/08/1997	Johnson					
		5	6	8	4	6	7	2	11/04/1997	Karidis et al.					
		5	7	1	2	6	4	0	01/27/1998	Andou et al.					
		5	7	6	7	8	1	1	06/16/1998	Mandai et al.					
		5	7	9	8	6	8	8	08/25/1998	Schofield					
		5	8	2	1	9	0	7	10/13/1998	Zhu et al.					
		5	8	4	1	4	0	3	11/24/1998	West					
		5	8	7	0	0	6	6	02/09/1999	Asakura et al.					
		5	8	7	2	5	4	6	02/16/1999	Ihara et al.					
		5	8	9	8	4	0	4	04/27/1999	Jou					
		5	9	0	3	2	4	0	05/11/1999	Kawahata et al.					
		5	9	2	6	1	4	1	07/20/1999	Lindenmeier et al.					
		5	9	4	3	0	2	0	08/24/1999	Liebendoerfer et al.					
		5	9	6	6	0	9	8	10/12/1999	Qi et al.					
		5	9	7	3	6	5	1	10/26/1999	Suesada et al.					
		5	9	8	6	6	1	0	11/16/1999	Miron					
		5	9	9	0	8	3	8	11/23/1999	Burns et al.					
		6	0	0	2	3	6	7	12/14/1999	Engblom et al.					
		6	0	2	8	5	6	8	02/22/2000	Asakura et al.					
		6	0	3	1	4	9	9	02/29/2000	Dichter					
		6	0	3	1	5	0	5	02/29/2000	Qi et al.					
		6	0	7	8	2	9	4	06/20/2000	Mitarai					
		6	0	9	7	3	4	5	08/01/2000	Walton					
		6	1	0	4	3	4	9	08/15/2000	Cohen					
		6	1	3	1	0	4	2	10/10/2000	Lee et al.					

		6	1	4	0	9	6	9	10/31/2000	Lindenmeier et al.					
		6	1	6	0	5	1	3	12/12/2000	Davidson et al.					
		6	1	7	2	6	1	8	01/09/2001	Hakozaki et al.					
		6	2	1	8	9	9	2	04/17/2001	Sadler et al.					
		6	2	3	6	3	7	2	05/22/2001	Lindenmeier et al.					
		6	2	6	6	0	2	3	07/24/2001	Nagy et al.					
		6	2	8	1	8	4	6	08/28/2001	Puente Baliarda et al.					
		6	3	0	7	5	1	1	10/23/2001	Ying et al.					
		6	3	2	9	9	5	1	12/11/2001	Wen et al.					
		6	3	2	9	9	5	4	12/11/2001	Fuchs et al.					
		6	3	6	7	9	3	9	04/09/2002	Carter et al.					
		6	4	0	7	7	1	0	06/18/2002	Keilen et al.					
		6	4	1	7	8	1	0	07/09/2002	Huels et al.					
		6	4	3	1	7	1	2	08/13/2002	Turnbull					
		6	4	4	5	3	5	2	09/03/2002	Cohen					
		6	4	5	2	5	4	9	09/17/2002	Lo					
		6	4	5	2	5	5	3	09/17/2002	Cohen					
		6	4	7	6	7	6	6	11/05/2002	Cohen					
		6	5	2	5	6	9	1	02/25/2003	Varadan et al.					
		6	5	5	2	6	9	0	04/22/2003	Veerasamy					
		H	0	0	1	6	3	1	02/04/1997	Montgomery et al.					

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

Exam. Init.		Document Number							Publication Date	Country or Patent Office	Class	Subclass	Translation		
		0	0	9	6	8	4	7	12/28/1983	EP			X (English Abstract)		
		0	2	9	7	8	1	3	06/24/1988	EP					
		0	3	5	8	0	9	0	08/29/1989	EP					
		0	5	4	3	6	4	5	05/26/1993	EP					
		0	5	7	1	1	2	4	11/24/1993	EP					
		0	7	6	5	0	0	1	03/26/1997	EP					
		0	8	1	4	5	3	6	12/29/1997	EP					
		0	8	9	2	4	5	9	01/20/1999	EP					
		0	9	3	2	2	1	9	07/28/1999	EP					
		0	9	6	9	3	7	5	01/05/2000	EP					
		0	9	8	6	1	3	0	03/15/2000	EP			X (English Abstract)		
		0	9	9	7	9	7	4	05/03/2000	EP					
		1	0	1	8	7	7	7	07/12/2000	EP					
		1	0	1	8	7	7	9	07/12/2000	EP					
		1	0	7	9	4	6	2	02/28/2001	EP					
		1	0	8	3	6	2	4	03/14/2001	EP					
		1	0	9	4	5	4	5	04/25/2001	EP					
		1	0	9	6	6	0	2	05/02/2001	EP					
		1	1	9	8	0	2	7	04/17/2002	EP					
		1	2	3	7	2	2	4	09/04/2002	EP			X (English Abstract)		
		1	2	6	7	4	3	8	12/18/2002	EP					
		2	5	4	3	7	4	4	10/05/1984	FR			X (English Abstract)		
		2	7	0	4	3	5	9	10/28/1994	FR					
		3	3	3	7	9	4	1	05/09/1985	DE			X (English Abstract)		

	5	5	1	4	7	8	0	6	11/18/1980	JP			X (English Abstract)	
	5	0	0	7	1	0	9	01/14/1993	JP				X (English Abstract)	
	5	1	2	9	8	1	6	05/25/1993	JP				X (English Abstract)	
	5	2	6	7	9	1	6	10/15/1993	JP				X (English Abstract)	
	5	3	4	7	5	0	7	12/27/1993	JP				X (English Abstract)	
	6	2	0	4	9	0	8	07/22/1994	JP				X (English Abstract)	
	2	1	1	2	1	6	3	03/16/1998	ES				X (English Abstract)	
	2	1	4	2	2	8	0	05/06/1998	ES					
	2	2	1	5	1	3	6	09/13/1989	GB					
	2	3	3	0	9	5	1	05/05/1999	GB					
	2	3	5	5	1	1	6	04/11/2001	GB					
	9	5	1	1	5	3	0	04/27/1995	PCT					
	9	6	2	9	7	5	5	09/26/1996	PCT					
	9	6	3	8	8	8	1	12/05/1996	PCT					
	9	7	0	6	5	7	8	02/20/1997	PCT					
	9	7	1	1	5	0	7	03/27/1997	PCT					
	9	7	3	2	3	5	5	09/04/1997	PCT				X (English Abstract)	
	9	7	3	3	3	3	8	09/12/1997	PCT					
	9	7	3	5	3	6	0	09/25/1997	PCT					
	9	7	4	7	0	5	4	12/11/1997	PCT					
	9	8	1	2	7	7	1	03/26/1998	PCT					
	9	8	3	6	4	6	9	08/20/1998	PCT					
	9	9	0	3	1	6	6	01/21/1999	PCT					
	9	9	0	3	1	6	7	01/21/1999	PCT					
	9	9	2	5	0	4	2	05/20/1999	PCT					
	9	9	5	6	3	4	5	11/04/1999	PCT					
	0	0	0	1	0	2	8	01/06/2000	PCT					
	0	0	0	3	4	5	3	01/20/2000	PCT					
	0	0	2	2	6	9	5	04/20/2000	PCT					
	0	0	4	9	6	8	0	08/24/2000	PCT					
	0	0	5	2	7	8	7	09/08/2000	PCT					
	0	1	0	3	2	3	8	01/11/2001	PCT					
	0	1	0	8	2	5	7	02/01/2001	PCT					
	0	1	1	3	4	6	4	02/22/2001	PCT					
	0	1	1	7	0	6	4	03/08/2001	PCT					
	0	1	2	4	3	1	4	04/05/2001	PCT					
	0	1	2	6	1	8	2	04/12/2001	PCT					
	0	1	2	8	0	3	5	04/19/2001	PCT					
	0	1	3	1	7	3	9	05/03/2001	PCT					
	0	1	3	3	6	6	5	05/10/2001	PCT					
	0	1	3	5	4	9	1	05/17/2001	PCT					
	0	1	3	7	3	6	9	05/25/2001	PCT					
	0	1	3	7	3	7	0	05/25/2001	PCT					
	0	1	4	1	2	5	2	06/07/2001	PCT					
	0	1	4	8	8	6	1	07/05/2001	PCT					
	0	1	5	4	2	2	5	07/26/2001	PCT					

		0	1	7	3	8	9	0	10/04/2001	PCT				
		0	1	7	8	1	9	2	10/18/2001	PCT				
		0	1	8	2	4	1	0	11/01/2001	PCT				
		0	2	3	5	6	4	6	05/02/2002	PCT				
	0	2	0	9	1	5	1	8	11/14/2002	PCT				
	0	2	0	9	6	1	6	6	11/28/2002	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Relevant pages, Place of Publication***)**

	Ali, M. et al., "A Triple-Band Internal Antenna for Mobile Hand-held Terminals," IEEE, pp. 32-35 (1992)
	Romeu, Jordi et al., "A Three Dimensional Hilbert Antenna," IEEE, pp. 550-553 (2002)
	Parker et al., "Convoluted array elements and reduced size unit cells for frequency-selective surfaces," IEEE Proceedings H, Vol. 138, No. pp. 19-22 (February 1991)
	Hansen, R.C., "Fundamental Limitations in Antennas," Proceedings of the IEEE, Vol. 69, No. 2, pp. 170-182 (February 1981)
	Jaggard, Dwight L., "Fractal Electrodynamics and Modeling," Directions in Electromagnetic Wave Modeling, pp. 435-446 (1991)
	Hohlfeld, Robert G. et al., "Self-Similarity and the Geometric Requirements for Frequency Independence in Antennae," Fractals, Vol. 7, No. 1, pp. 79-84 (1999)
	Samavati, Hirad, et al., "Fractal Capacitors," IEEE Journal of Solid-State Circuits, Vol. 33, No. 12, pp. 2035-2041 (December 1998)
	Pribetich, P., et al., "Quasifractal Planar Microstrip Resonators for Microwave Circuits," Microwave and Optical Technology Letters, Vol. 21, No. 6, pp. 433-436 (June 20, 1999)
	Zhang, Dawei, et al., "Narrowband Lumped-Element Microstrip Filters Using Capacitively-Loaded Inductors," IEEE MTT-S Microwave Symposium Digest, pp. 379-382 (May 16, 1995)
	Gough, C.E., et al., "High Tc coplanar resonators for microwave applications and scientific studies," Physica C, NL, North-Holland Publishing, Amsterdam, Vol. 282-287, No. 2001, pp. 395-398 (August 1, 1997)
	Radio Engineering Reference--Book by H. Meinke and F.V. Gundiah, Vol. I, Radio components. Circuits with lumped parameters. Transmission lines. Wave-guides. Resonators. Arrays. Radio waves propagation, States Energy Publishing House, Moscow, with English translation (1961) [4 pp.]
	V.A. Volgov, "Parts and Units of Radio Electronic Equipment (Design & Computation)," Energiya, Moscow, with English translation (1967) [4 pp.]
	Puente, C., et al., "Multiband properties of a fractal tree antenna generated by electrochemical deposition," Electronics Letters, IEE Stevenage, GB, Vol. 32, No. 25, pp. 2298-2299 (December 5, 1996)
	Puente, C., et al., "Small but long Koch fractal monopole," Electronics Letters, IEE Stevenage, GB, Vol. 34, No. 1, pp. 9-10 (January 8, 1998)
	Puente Baliarda, Carles, et al., "The Koch Monopole: A Small Fractal Antenna," IEEE Transactions on Antennas and Propagation, New York, US, Vol. 48, No. 11, pp. 1773-1781 (November 1, 2000)
	Cohen, Nathan, "Fractal Antenna Applications in Wireless Telecommunications," Electronics Industries Forum of New England, 1997. Professional Program Proceedings Boston, MA US, May 6-8, 1997, New York, NY US, IEEE, US pp. 43-49 (May 6, 1997)

Examiner	Date Considered
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	